

Remarks

In the Office Action dated July 9, 2004, the Examiner rejected claims 1-60 under 35 U.S.C. § 112, first paragraph. The Examiner rejected claims 1-60 under 35 U.S.C. § 102(a) based on the prior disclosure of the HYTHER Program (i.e., HYTHER Version 1.0) on March 24, 1999.

With respect to the Examiner's rejection under 35 U.S.C. § 112, the independent claims have been amended to make it clearer that hybridization thermodynamics of at least one higher order complex are statistically weighted. Also, dependent claims 2, 22 and 42 have been amended to make it clearer that more than one individual single-stranded, bimolecular and higher order complexes are statistically weighted and at least one equilibrium concentration of at least one species is output.

With respect to the Examiner's rejection under 35 U.S.C. § 102, the Examiner's attention is initially directed to page 11 of the written presentation (copy attached hereto) entitled "A New Program For The Prediction of DNA Hybridization Thermodynamics" which accompanied the Amendment dated May 14, 2004. This page is entitled "Interactive mode: Module 1". The Examiner's attention is also directed to Figure 2B of the present application wherein net hybridization thermodynamics are provided on the output interface of Module 1. Such net hybridization thermodynamics are not to be found on page 11 since HYTHER Version 1.0 did not include such thermodynamics. These thermodynamics are discussed at page 16, line 10 through page 20, line 27 of the specification.

The Examiner's attention is specifically directed toward Figure 8 and the corresponding description found on page 20, lines 4-20 wherein the accuracy of net hybridization thermodynamics is illustrated. Clearly, net hybridization thermodynamics as provided for in each of the independent claims, are an important feature of the present application, not shown in HYTHER Version 1.0.

Furthermore, HYTHER Version 1.0 did not include the feature of statistical weighting of the hybridization thermodynamics of at least one higher order complex.


In view of the above, neither HYTHER Version 1.0 nor any of the other cited references alone or in combination provide the features of the presently claimed invention. Consequently, a prima facie case of anticipation has not been established and the rejection should be reversed.

Consequently, in view of the above and in the absence of better art, Applicants' Attorney respectfully submits the application is in condition for allowance which allowance is respectfully requested.

A check in the amount of \$110.00 is enclosed to cover the Petition fee. Please charge any additional fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978 -- a duplicate of this paper is enclosed for that purpose.

Respectfully submitted,

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By 

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